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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/069,189	10/22/2001	Andreas Kochenburger	32860-000183	1788
30596	7590	01/31/2005	EXAMINER	
HARNESS, DICKEY & PIERCE, P.L.C.			PALADINI, ALBERT WILLIAM	
P.O.BOX 8910			ART UNIT	PAPER NUMBER
RESTON, VA 20195			2125	

DATE MAILED: 01/31/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/069,189	Applicant(s) KOCHENBURGER, ANDREAS	
	Examiner Albert W Paladini	Art Unit 2125	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 October 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>1/22/02</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1-20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Referring to figure 2, lines 6-8 on page 7 state, "According to step III, the computer model 20 determines the actual costs arising in the individual components 11.1, 11.2." It is not clear what the "actual costs" refers to. It can be cost to perform the operation, cost of the components, or cost to maintain, etc. In a description of computer model 20, lines 14-15 on page 6 state, "It comprises a theoretical model of the installation 10 and its components." Actual costs are costs actually incurred, and are not obtained from a theoretical computer model."

Appropriate correction and clarification are required.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

4. Claims 1-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1

Lines 6-8 recite "determining, by the computer module, the actual cost values arising in at least one component of the installation, taking into account earnings from delivery of a final product." There is not antecedent basis for the "computer module." It is not clear "at least one component" is the same "at least one component" for "recording, by a status message" as recited in line 3. Assuming that this is meant to be a "computer model", and the actual cost is meant to be some sort of operating cost, an actual cost is the amount actually incurred, which may not be obtained from a "computer model." It is also not understood how determining a cost utilizes "earnings from delivery of a final product."

Appropriate correction and clarification are required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Kumagai (6496957).

This rejection is made to the extent that the claims are understood by addressing those recited elements, which appear to work together to achieve the objective of checking the costs during an operation.

In figure 2, information is recorded about board costs 524 and operation or assembling costs 526. In step S103 of figure 6, the first design evaluation, differences between the actual circuit design, and the target circuit design are obtained. This includes calculating assembly costs for each operation and calculating differences between actual costs and stored costs for the operation.

Relevant Prior Art

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Cantley (4325223) discloses a n energy management system for refrigeration systems which optimizes the operating parameters to minimize costs, which corrects the stored cost per ton per hour for a maximum load when the calculated pressure difference is less than the stored pressure difference.

Iino (5347446) discloses an apparatus for predicting and controlling cost of an operation which includes a model predictive control apparatus comprising: prediction means for determining a predictive equation of future values of controlled variables by using a model obtained by approximating a dynamic characteristic of a controlled system; arithmetic means for calculating a manipulated variable to minimize an cost function in a quadratic form relating to a difference between a future reference value and a manipulated variable, set on the basis of the predictive equation while satisfying limit conditions to give the manipulated value thus calculated to the controlled system; response time constant setting means for setting a response time constant indicating a rise time at which the controlled system should be operative; weighting factor parameter calculation means for calculating a weighting factor including the response time constant in an index part, the value thereof increasing with passage of time; and cost function setting means for constructing a new cost function in which the calculated weighting factor is built in to set it as the cost function.

Shakespeare (6272440) discloses a method and apparatus for determining color and composition of a material which includes a control algorithm which minimizes the difference between the color measurement and the color target, optionally using weighting factors on each component of the target, can provide the nearest match over the set of targets. The difference function to be minimized can also include the costs and usage of materials and other resources which are used by the means of modulating the coloring process, as well as limits on their allowed usage, in calculating an optimal control action.

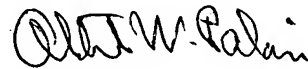
Art Unit: 2125

Any inquiry concerning this communication or earlier communication from the examiner should be direct to Albert W. Paladini whose telephone number is (571) 272-3748. The examiner can normally be reached from 7:30 to 3:30 PM on Monday, Tuesday, Thursday, and Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Leo P. Picard, can be reached on (571) 272-3749. The official fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

January 27, 2005



Albert W. Paladini
Primary Examiner
Art Unit 2125